AF/2622

Practitioner's Docket No. 48742-CPA (70904)
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	H. Maeda, et al.		
Application No.:	09/185,212	Group No.:	2622
Filed:	November 3, 1998	Examiner:	Wallerson, Mark E.
For:	IMAGE PROCESSING DEVICE INCLUDING IMAGE DATA MANAGEMENT CAPABILITIES		

Mail Stop: Appeal Brief - Patents
Commissioner for Patents
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TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION--37 C.F.R. SECTION 1.192)

1. Transmitted herewith, in triplicate, is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on 15 January 2003.

NOTE: "Appellant must, within two months from the date of the notice of appeal under section 1.191 or within the time allowed for reply to the action from which the appeal was taken, if such time is later, file a brief in triplicate...." 37 C.F.R. Section 1.192(a) (emphasis added)

2. STATUS OF APPLICANT

This application is on behalf of

CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. SECTION 1.8(a))

I hereby certify that, on the date shown below, this correspondence is being:

MAILING

[x] deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop: Appeal 'Brief – Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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[ ] transmitted by facsimile to the Patent and Trademark Office (703) ___-____.

Kathryn A. Grindrod
Signature

Date: May 14, 2003

Kathryn A. Grindrod
(*type or print name of person certifying*)

[X] other than a small entity.
[ ] a small entity.

A statement:

[ ] is attached.
[ ] was already filed.

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. Section 1.17(c), the fee for filing the Appeal Brief is:

[ ]	small entity	$160.00
[X]	other than a small entity	$320.00

Appeal Brief fee due $ 320.00

4. EXTENSION OF TERM

NOTE: The time periods set forth in 37 C.F.R. 1.192(a) are subject to the provision of Section 1.136 for patent applications. 37 C.F.R. 1.191(d). See also Notice of November 5, 1985 (1060 O.G. 27).

NOTE: As the two-month period set in Section 1.192(a) for filing an appeal brief is not subject to the six-month maximum period specified in 35 U.S.C. 133, the period for filing an appeal brief may be extended up to seven months. 62 Fed. Reg. 53,131, at 53,156; 1203 O.G. 63 at 84. Oct. 10, 1997.

The proceedings herein are for a patent application and the provisions of 37 C.F.R. Section 1.136 apply.

(complete (a) or (b), as applicable)

(a) [ ] Applicant petitions for an extension of time under 37 C.F.R. Section 1.136 (fees: 37 C.F.R. Section 1.17(a)(1)-(5)) for the total number of months checked below:

[ ] Extension (months)	Fee for other than small entity	Fee for small entity
one month	$110.00	$ 55.00
two months	$400.00	$200.00
three months	$920.00	$460.00
four months	$1,440.00	$720.00
five months	$1,960.00	$980.00

Fee $_____

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

[X] An extension for two months has already been secured, and the fee paid therefor of $400.00 is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request $-0-

or

(b) [ ] Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal brief fee $ 320.00
Extension fee (if any) $ -0-

TOTAL FEE DUE $ 320.00

6. FEE PAYMENT

[X] Attached is a check in the sum of $ 320.00 .
[ ] Charge Account No. _____ the sum of $_____.

A duplicate of this transmittal is attached.

7. FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in resuming the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to change the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G 31-33.

[X] If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 04-1105.

AND/OR

[X] If any additional fee for claims is required, charge Account No. 04-1105.

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SIGNATURE OF PRACTITIONER

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PATENT TRADEMARK OFFICE

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Attorney Docket No. 48,742 CPA (70904)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT:	H. Maeda, et al.	EXAMINER:	Wallerson, Mark E.
U.S.S.N.:	09/185,212	GROUP:	2622
FILED:	November 3, 1998		
FOR:	IMAGE PROCESSING DEVICE INCLUDING IMAGE DATA MANAGEMENT CAPABILITIES (AS AMENDED)		

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on 14 May 2003.

By: Kathryn A. Grindrod
Kathryn A. Grindrod

Mail Stop: Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

BRIEF ON APPEAL

This is an appeal from the final rejection of the above-identified application dated 16 October 2002. An appropriate Notice of Appeal from the Primary Examiner to the Board of Patent Appeals and Interferences was filed on 15 January 2003.

Three copies of this Brief are enclosed.

BRIEF ON APPEAL FEE

A check in the amount of three hundred twenty dollars ($320.00), the required fee for filing a Brief on Appeal, is enclosed herewith [37 C.F.R. 1.17(c)].

If for any reason any further fees are required, any fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge and/or credit such amounts to Deposit Account No. **04-1105**, as necessary.

REAL PARTY IN INTEREST

The real party in interest is SHARP KABUSHIKI KAISHA, 22-22 Nagaike-Cho, Abeno-ku, Osaka, 545-8522, Japan. The assignment of the invention by the inventors to the assignee corporation/company was recorded in the United States Patent and Trademark Office on 3 November 1998 at Reel **9578**, Frame **0844**.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences known to Appellants, Appellants' legal representatives or the Assignee that will directly affect, or be directly affected by, or have a bearing upon the Board's decision in the present Appeal.

STATUS OF CLAIMS

Claims 1 - 4 and 6 - 17 are pending and stand finally rejected.

STATUS OF AMENDMENTS

The Official Action dated 16 October 2002, finally rejected Claims 1 – 4, 6 – 10, 12, 14 - 16 and 17 under 35 U.S.C. 103(a) as being unpatentable over the Suzuki, et al. reference (U.S. Patent No. 5,923,013) in view of the Tanaka, et al. reference (U.S. Patent No. 5,682,549).

In addition, the same Official Action finally rejected Claim 11 as being unpatentable over the Suzuki, et al. and Tanaka, et al. references as applied to Claim 1, and further in view of the Morikawa reference (U.S. Patent No. 5,960,247) under the terms of 35 U.S.C. 103(a).

Further, the same Official Action finally rejected Claim 13 as being unpatentable over the Suzuki, et al. and Tanaka, et al. references as applied to Claim 1, and further in view of the Kusumoto reference (U.S. Patent No. 6,088,135) under the terms of 35 U.S.C. 103(a).

Appellants filed an Amendment after Final Rejection on 12 December 2002 wherein (i) an amendment to correct a typographical error in the "clean" version of Claim 1 as previously amended was proposed, (ii) a amendment for the purpose of further clarifying Claim 14 was proposed, and (iii) reconsideration of the Examiner's FINAL rejections was sought.

On 31 December 2002, the Examiner issued an Advisory Action summarily denying the entry of Applicants' proposed Amendments to Claims 1 and 14, and maintaining his previously stated grounds for rejection.

A clean set of all of the claims pending in this Appeal is set forth in the attached Appendix I. In addition, copies of Claims 1 and 14 as Applicants proposed to amend them in the Amendment After Final Rejection Under 37 CFR 1.116 respectively (i) to correct a typographical error appearing in the "clean" version of Claim 1 not shown the last made changes thereto, and (ii) to clarify the presently pending version of Claim 14, are attached as Appendix II.

SUMMARY OF THE INVENTION

Generally speaking, the present invention provides an image processing device for efficiently and accurately processing each of a plurality of input image data. More particularly, the device of the present invention manages input request information, input completion information, and processing completion information for each of a plurality of input image data. As a result, in the event trouble (i.e., a jam, a lack of sufficient available memory, or the like) is encountered, the device "knows" (i.e., has an internal record of) the point in the processing of the plurality of image data at which the trouble was encountered.

Therefore, if the input of the plurality of image data is interrupted by trouble, the present invention makes it possible to perform instructed image processing with respect to those of the subject plurality of image data which previous to the trouble had been completely inputted; to recognize which of the subject plurality of image data was not completely inputted prior to the trouble; and to restart the input of the subject plurality of the image data at the point in the input of the subject plurality of image data immediately following the last completed image data input prior to the encountering of the trouble. In other words, by managing input request information together with input completion information, the present invention provides efficient and accurate image data input control measure capabilities (see, page 7, line 24 to page 8, line 7 of the present specification).

In addition, if the completion of final processing of image data for output is interrupted for some reason, the present invention makes it possible (i) to recognize which of the subject plurality of image data was and was not completely processed for output prior to the trouble and (ii) to restart the final processing for output of the subject plurality of image data at the point immediately following the last completed image data processed prior to the encountering of the trouble. More particularly, by managing input completion information together with final processing completion information concerning each of the subject plurality of image data, the present invention also provides efficient and accurate image data output control capabilities (see, page 5, line 19 to page 6, line 8 of the present specification).

To accomplish the foregoing, the present invention includes input means; image processing means; data handling means; storage means; and output means. More particularly, the data handling means of the present invention includes management table means for managing (i) input request information indicative separate requests for the input of ***each*** of the subject plurality of image data; and (ii) input completion information indicative of the completion of ***each*** input of image data responsive to each input request. In addition, the management table manages (iii) completion information indicative of the completion of the processing (and output) of ***each of the subject plurality of input data***.

The management table also may include specific capabilities for the management of information relating to additional data processing and/or management capabilities of the image-processing device as set forth in the various dependent claims. The particulars of these capabilities are not necessary to this discussion since the patentability of the present invention is deemed to depend upon the patentability of the inventions of independent Claims 1 and 14 that have been described in general terms immediately above.

Therefore, in accordance with the present invention, in case trouble interrupts the input process, it is possible to specify which of the plurality of image data was not completely inputted due to the interruption, and to restart the input of the image data at the specified point at which the interruption in the input of image data occurred. Thus, the present invention is very effective in providing recoveries from troubles such as a jam. Similarly, in those cases in which trouble interrupts image processing, it is possible to specify which of the plurality of image data was not completely processed due to the interruption, and to restart image processing operations at the specified point at which the failure in image processing occurred.

The foregoing summary of the present invention and its operation are illustratively depicted in "Explanatory View 1" (Appendix III attached) and "Explanatory View 2" (Appendix IV attached) for convenience of understanding. More particularly, as will be seen with reference to Explanatory Views 1 and 2 and to the present specification, mainly at page 48, line 15, to page 50, line 12, the operation of the present invention may be understood as including six steps.

In step 1, the plurality of image data to be processed is read sequentially by an input means such as a scanner so as to obtain "raw" input image data. Then, in step 2, preliminary image processing, such as multi-value image processing, multi-to-binary conversion, and the like, is performed on the "raw" input image data so as to place it in a form suitable for final image processing.

In step 3, the preliminarily processed image data is temporarily stored in a hard disc or the like. In step 4, each of the completed and preliminarily processed input image data is managed using the image input table (701). In step 5 for each completely input, preliminarily processed and managed input image data, is stored in image memory (403, 502).

At this point it is to be noted that on the image input management table, input completion information (708) is set for ***each*** input image data, the input completion information (708) indicating the completion of input of ***each*** input image data into the image memory. Further, in the image memory (403, 502), final image processing (scaling, making composite image, the like operation) is performed with respect to ***each*** input image data, so as to prepare it as output image data. In the latter regard, it also is to be understood that the contents of the image processing to be performed with respect to ***each*** image data, and information relating to ***each*** image data that has undergone the image processing are managed on the image process table (710).

Finally, in step 6, it is confirmed that final image processing has been performed on ***each*** of the input image data, and the information regarding the output of the image data subjected to the image processing is managed on the image output table (720).

In the above regard, it is significant to the understanding of the present invention that it be realized that ***each*** of the subject plurality of image data is inputted from the image input means and managed by the management table (image input table 701), on an **"each input image data"-basis.** The primary descriptions supporting this interpretation of this feature in the present specification read as follows.

> "The image input table 701 manages information relating to image data and processing conditions, for each image data inputted through the scanner section 204 (31), the facsimile board 603, the printer board 601, etc". - (Specification, page 41, lines 8 to 12, Emphasis added)

> "The document ID information 702 is an identification number for identifying each page of inputted document images or received images". - (Specification, page41, the third line from the bottom to the first line from the bottom, Emphasis added)

> "The input completion information 708 shows whether image data of one page is completely inputted from the image input section (whether the image data is stored in the image memories 403 and 502)", - (Specification, page 42, the fifth line from the bottom to the first line from the bottom, Emphasis added)

> "Specifically, the present invention can be applied to an image processing device for performing image processing with respect to image data inputted from a document image reading apparatus, etc., and an image processing device which further converts the image data so as to have a desired image expression and outputs the resulting image data. Namely, the present invention can be applied to any image processing device requiring, for each inputted image, management of contents of image processing and management of image data which has undergone the image processing". - (Specification, page 14, lines 7 to 17, Emphasis added)

> "An image processing device of the present invention, including:. . . . . .
> (5) management table means for managing . . . . . and
> (ii) the characteristics of each image data confirmed by the image data confirmation means, as management information of image data inputted through the image data input means;. . . . . and
> (8) image data management table means for managing information of each image processed by the image processing means. The management table means can also function as the image data management table means". - (Specification, page 58, lines 9 to page 59, line 18, Emphasis added)

It also is important not to be misled by the fact that in the present invention the input image data that has been subjected to preliminary image processing to place it in a form for later final image processing is temporarily stored in a memory such as a hard disc. The primary descriptions supporting this interpretation of this feature in the present specification are as follows.

"The read image data resulting from reading the document image by the scanner unit 40 are sent to the main-image processing board and the sub-image processing board, to be described later, and temporarily stored in a memory of the main-image processing board and a memory of the sub-image processing board after various image processes. Then, the image in the memory is read out in response to an output instruction, and transferred to the laser recording section 32 to form an image on a recording sheet. - (Specification, page 17, lines 14 to 24, Emphasis added)

The hard disk device 503 is composed of a hard disk and a gate array which controls the hard disk, and provided for storing and managing image data of a plurality of documents so that a plurality of copies are produced by reading out the document images from the hard disk for a desired number of times". - (Specification, page 25, the bottom line to the page 26, line 6, Emphasis added)

"The 2-bit electronic image data produced by the above conversion is sent to the memory, i.e., the hard disk device 503, etc., and temporarily stored and managed by an amount corresponding to a piece of document.
When all the documents placed on the ADF 36 (203) of the digital copying machine 30 are read, the 2-bit electronic image data temporarily stored in the hard disk device 503 is read out a specified number of times by the control of the gate array. The read-out 2-bit electronic image data is again sent to the main-image processing board 400 through the connectors 405 and 505 connected thereto, subjected to processes such as the gamma correction, and transferred to the laser writing unit 46 through the laser control section 404." - (Specification, page 30, lines 4 to 18, Emphasis added)

> "With this structure, the document image read and inputted through the scanner section 31 (204) can be reproduced as a copied image from the laser recording section 32 without impairing characteristics of the image of the document as a multi-value image. Additionally, for example, even when a large volume of documents are required to be processed and outputted at a high speed, the use of the sub-image processing board 500, the hard disk device 503, etc. enables reproduction of the image." - (Specification page 35 the sixth line from the bottom to page 36, line 4, Emphasis added)

Accordingly, it will be recognized that in the present invention, the image memories 403 and 502, which are image data storing means, are memories for use in generating an image to be printed out (printout image) by performing the image processing with respect to the input image data. The primary descriptions supporting this interpretation of this feature in the present specification are as follows.

> "The image memory 403 stores image data having been processed and control information such as information for managing the sequence of the processes." - (Specification, page 25, lines 8 to 11, Emphasis added)

> "The image memory 502 is composed of a memory and a gate array which controls the memory, and provided for storing and managing binary image data resulting from image processing and control information of processes." - (Specification, page 25, the fifth line from the bottom to the first line from the bottom)

"The input completion information 708 shows whether image data of one page is completely inputted from the image input section (whether the image data is stored in the image memories 403 and 502)." - (Specification, page 42, the fifth line from the bottom to the first line from the bottom, Emphasis added)

"The process ID information 713 is information showing a location (an address, etc.) in the image memories 403 and 502, where the image data processed in accordance with the process information 712 and converted into output image data of one page is stored." - (Specification, page 43, the seventh line from the bottom to the second line from the bottom)

"When the normal image processing (multi-value image processing) is performed with respect to the inputted document image data and the image-processed image data is prepared in the image memories 403 and 502, the process ID information 713, as information showing a location (address) where the image data is stored in the image memories 403 and 502, is set to "1", and the process completion information 714 is set to "1" indicating completion of the processing." - (Specification, page 48, the fifth line from the bottom, to page 49, line 4, Emphasis added)

"When the output of the image data is completed, the memory release information 727 for releasing the image memories 403 and 502, i.e., permitting an instruction to clear the image data from the image memory, is set. Finally, Fig. 7(c) shows the image output table 720 after every image data stored in the image memories 403 and 502 is outputted as an output image." - (Specification, page 51, lines 8 to 15, Emphasis added)

The operation of the present invention will be better understood by way of the example depicted in Explanatory View 1 (Appendix III, attached) in which four images, A, B, C, and D are read out so as to form four kinds of input image data (IN_A, IN_B, IN_C, and IN_D) respectively, and the input image data, IN_A, IN_B, IN_C, and IN_D are composed and printed out as output print (OUT_ABCD) on one sheet of paper.

In the present invention, the input completion information indicating that the input of the input image data IN_A, IN_B, IN_C, and IN_D into the image data storing means (image memories 403 and 502) has been completed is respectively set for each input image data on the management table (image input table 701) and stored. Accordingly, when an input jam occurs (say in transporting input images through a scanner) in reading the image C, the input completion information for the input image data IN_A and IN_B has been previously set on the management table and stored, but the input of the image of the image C fails as a result of the jam. In the present invention, after the transport jam is solved, the image input is restarted at the point of the reading of the image C. It is unnecessary to read the images A and B again.

Explanatory View 2 (Appendix IV, attached), depicts the situation in which the input completion information for the input image data IN_A and IN_B have been previously set on the management table and stored when troubles such as short of image memory occurs in reading the image C such that storing the image C fails. In the present invention, however, the temporal storage has previously, temporarily stored the input image data IN_C. Therefore, after the trouble is solved, the process is restarted at the point of the transfer of the input image data IN_C from the temporary memory (hard disc device 503) to the image memory (403 and 502). It is unnecessary to read the images A, B, and C, again. A similar result occurs in the case wherein final processing in the image memory (403 and 502) fails for some reason.

ISSUES

The sole issue on this Appeal is as follows:

(1) Whether or not Claims 1 and 14 are unpatentable over the Suzuki, et al. reference (U.S. Patent No. 5,923,013) in view of the Tanaka, et al reference (U.S. Patent No. 5,682,549) under the provisions of 35 U.S.C. 103(a).

GROUPING OF THE CLAIMS

All of the finally rejected claims of this application stand or fall together based upon the allowabilty of independent Claims 1 and 14 for the purposes of the present Appeal.

ARGUMENT

I. Introduction

The primary issue between the Appellants and the Examiner on this Appeal centers on whether or not the Suzuki, et al. reference and/or the Tanaka, et al reference, taken either alone or in combination with one another, teach, disclose or suggest an image processing device in which **each image data input** is managed by a management table ***on an image basis*** so as to individually determine (i) its input completion or (ii) both its input completion and its processing completion.

Applicants respectfully submit that not only is the resolution of the foregoing issue in the negative, but also that the Examiner has failed to adequately explain and/or otherwise to establish a *prima facie* case (the requirements of which are set forth below) in support of his conclusion that the presently pending independent claims of this application are unpatentable over the cited references under the terms of 35 USC 103(a).

> "(t)o establish a *prima facie* case of obviousness, three basic criteria must be met. First, **there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings**. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure**. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)" (Emphasis added) See, MPEP 2142 at page 2100-97.

In particular, Applicants respectfully submit that on a substantive level the Examiner's rejections cannot withstand analysis. Other than summarily asserting (i) that the Suzuki, et al reference discloses sending image data to a storage means, but not that the management table manages input request information indicative of a request for transmitting image data from the processing means and input completion information indicative of the completion of an input of image data, and (ii) that Tanaka, et al shows the elements missing from Suzuki, et al.; the Examiner has failed to provide the Applicants with any, much less an adequate, statement and explanation of the basis for his assertion that a person of ordinary skill in the art at the time the present invention was made would have combined the cited references in the manner postulated in his rejection without reference to Applicants' specification. Indeed, the Examiner's only stated basis for his conclusions is that the result of the combination of references that he has postulated would be a device in which image data would be easily stored, managed and output.

Further, as will appear more fully below, the Examiner also has failed to establish the level of skill in the art at the time that the present invention was made; to demonstrate a full understanding of the references which he has cited; or to show a reasonable likelihood of success of the combination that he has postulated in the accomplishment of the features and advantages provided by the present invention. In fact, the following discussion will clearly show that the combination of references postulated by the Examiner not only is not motivated or suggested to one skilled in the art in view of the cited references, but also that the cited references when read respectively as wholes contraindicate the combination that the Examiner has advocated in his outstanding rejections.

Accordingly, Applicants respectfully submit that the Examiner's outstanding rejections of the claims of this application are flawed not only because there substantively is absolutely no suggestion, motivation or reasonable expectation of success of the combination of references postulated in the outstanding rejections present within the four corners of the art currently of record and relied upon by the Examiner, but also because the Examiner has failed to appropriately satisfy his obligation to specify in a manner to which Applicants could effectively respond the reasons that would lead one skilled in the art at the time the invention was made to select the references he has applied and to combine them in a manner that results in the claimed invention. Instead, the Examiner's outstanding rejections can only be characterized as a hindsight based analysis wherein the Examiner has improperly used the Applicants' claims as a framework within which to build a mosaic recreating the Applicants' invention from distinct elements of the prior art taken in isolation from the contexts in which they are disclosed. The impropriety of the latter approach to the examination of pending claims in a United States Patent Application is very well known and understood. (See authority cited above and *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed Cir. 1999); *McGinley v. Franklin Sports Inc.*, 262 F. 3d 1339, 60 USPQ2d 1001 (Fed Cir. 2001)); *In re Sang Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Feb Cir. 2002); *In re Huston*, (Slip Op. 02-1048 (Fed Cir. October 2002))

The following sections will discuss the particulars of the Examiner's rejections, and the relevant portions of the disclosures of the Suzuki, et al. and the Tanaka, et al. references individually. Thereafter, the inaccuracy and insufficiency of the Examiner's support for his outstanding FINAL rejections in this application will be discussed.

II. The Rejections:

The Examiner's bases for FINALLY rejecting independent Claims 1 and 14 are as follows:

> "the Suzuki et al reference discloses an image processing device (72) comprising image data input means (76 or 110, Fig. 12) for inputting image data; image data storage means (80) for storing the image data (Column 8, lines 29-34); image data confirmation (identifying) means for confirming (identifying) the characteristics (content) of the image data (Column 5, lines 14-19, Column 6, lines 56-64, and Column 8, lines 11-28); management table means (92, Fig. 13) for managing on an image basis as each input image data is inputted from the input means ***(which reads on managing a print job on a job basis and on a page basis)***(the Abstract, lines 1-2, Column 8, line 58 to Column 9, line 16, and Column 11, lines 29-35), the characteristics of each image data as management information of the image data (Column 8, lines 42-49 and Column 8, line 58 to Column 9, line 9) with reference to the corresponding image data stored in the image data storage means (80) (Column 8, line 58 to Column 9, line 9) and image processing means (82) for performing image processing with respect to the image data (Column 8, lines 29-35).
>
> "***Suzuki differs from Claims 1 and 14 in that although he discloses sending the image data to the storage means, he does not clearly disclose that the management table means manages input request information indicative of a request for transmitting the image data from the image processing means and input completion information indicative of the completion of an input of the image data in connection with corresponding information stored in the image data storage means.***

"Tanaka discloses an image data management system comprising a management table wherein input request and input completion requests are managed by the management table (column 8, lines 20-38). Therefore, ***it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Suzuki wherein input request and input completion requests are managed by the management table. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Suzuki by the teaching of Tanaka in order to easily store, manage and output the image data as disclosed by Tanaka in column 2, lines 13-15.***"

III. The Suzuki Reference:

The Suzuki, et al. reference (U.S. Patent No. 5,923,013) is entitled "Print Control System and Method for Controlling the System In (On) **Page By Page Basis**" (emphasis added). Accordingly, it is clear that the Suzuki, et al. invention is directed to a system that manages image data in distinct units that constitute the entire content of a page of a print job ***on a unitary page or a job basis***. See, for example, Column 2, lines 10-26 of the Suzuki et al reference. Indeed, as the following specific examples from the Suzuki, et al reference indicate, the Suzuki concept of dealing with entire pages of data managed as distinct units by using job description files that direct the operation of a job control module on a job basis and/or on a page basis is very specifically stated and described throughout the Suzuki et al specification.

> "A print control system managing a print job on a job basis and on a page basis. When a print job is interpreted, a job description file and page data for each page are created. The job description file contains the attribute of the entire job and a job element (content) list. An item of page data is associated with the print attribute of each page including image data. The job control module extracts necessary image data according to the job element list and sends it to a printer. Because a plurality of print jobs share the common data, many job management functions, including print job combination and page addition/deletion, can be implemented easily" - [Suzuki, et al., ABSTRACT, Emphasis added]

"..., this job 10 is described in the page description language (PDL). When the print control system shown in FIG. 1 receives the print job 10, it performs job interpretation on the print job 10 and divides it into one job description file (JDF) 14 and a plurality items of page data (PD) 16, one for each page.

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As will be described later, the job description file 14 contains a job elements (contents) list and the print attributes such as a print sequence and the number of copies. These print attributes are associated with the whole print job. On the other hand, the page data 16 is associated with the print attribute of each page, the print attribute being composed of image data and the print condition of each page and so on.

.....

More specifically, the job control module 20 finds the page data 16 required for the execution of the print job. When the page data 16 is found, the image data of each page is found and sent to the printer. At this time, the job control module 20 controls printing according to the print attribute contained in the job description file 14 and the page data 16." - (Suzuki, et al., Column 4, line 51 to Column 5, line 25, Emphasis added)

"FIG. 3 shows an example of job description files and an example of a print execution result. As shown in FIG. 3(A}, the print job is composed of two job description files, JDF ID 10 and JDF ID 11, and five pages of page data, page 1 to page 5." - (Suzuki, et al., Column 6, lines 3 to 7, and FIG. 3 (Explanatory view 3 (Appendix V)), Emphasis added)

> "FIG. 13 shows an example of the contents management table 92. The contents management table 92 manages two types of contents, job description files and page data, equivalently. ..... Column 134 contains the type of each content, that is, whether the content is a job description file or page data. ..... Column 140 contains the pointer pointing to the address within the JDF storage module 90 where the job description file is stored. Column 142 contains the pointer, pointing to the address with in the data memory 80 where image data is stored. Columns 144 and 146 contain page data attribute information. That is, they contain information about the color (black and while or color) and page size. The table also contains other attributes, as necessary, which are usually contained in databases." - (Suzuki, et al., Column 8, line 57 to Column 9, line 7, and FIG. 13, Emphasis added)

Hence, it will be seen that the foregoing descriptions make it unambiguously clear that in the Suzuki, et al. reference image data contained in one page data is handled as a unit and printed on one sheet of paper. Suzuki, et al. are not concerned with the composition of a plurality of input image data required to form one page. The host handles the latter function separately. What the Suzuki, et al. reference is concerned with is the page selected from among the plurality of page data for print out. Accordingly, the page data in the Suzuki may be likened to the output image data (OUT_ABCD in Explanatory views 1 and 2 (Appendix III and IV, attached)). More specifically, in the Suzuki, et al reference the image data without question is managed on so called, **"each print out page"-basis**. Therefore, the Suzuki, et al. reference fails to describe or in any way, shape or form to suggest, the feature of the present invention that "the completion of the input of the input image data is managed ***for each input image data***".

A consideration of the basic operation of the Suzuki, et al. device is instructive in the latter regard. This operation proceeds as generally set forth by Suzuki, et al. at Column 9, lines 33-45 as follows:

> "To execute a print job in the print control system shown in Fig. 12, the job control module 94 reads the job description file from the JDF storage module 90 and, based on that file, controls the printing. More specifically, the image data of each page, which will be processed by the print job, is read from the data memory 80 for transmission to the decompression module 96 for expansion. The image data is then sent, through the attribution adjustment module 98, to the page buffer 100. Then the image data of each page is read from the page buffer 100 and is sent, via the data send module 102, to the printer 104. The print condition is set up according to the print attribute contained in the job description file and the page data for each page."
> *(Note again that the data stored in storage 80 is in page units)*

The remainder of the Suzuki et al reference is concerned with the specifics of the manipulation and print out of the various distinct page data units 16 according to the capabilities of the system and the requirements of the various job description files. Therefore, those portions of the Suzuki, et al reference are not deemed to be relevant to the present discussion.

Explanatory View 4 (Appendix VI, attached) is instructive in this regard because it illustratively depicts an example in which four Documents A, B, C, and D are read and printed out as output print (OUT_ABCD) on one sheet of paper, in the arrangement in which the image data is managed for each page as disclosed in the Suzuki, et al. reference. Also, Explanatory View 3 (Appendix V, attached) provides a clear visualization of the fact that in the Suzuki, et al. reference, the individual image data is obtained after the print job is interpreted. Thus, even if only the input of one of the plurality of the image data included in the print job is not successfully carried out, it is necessary to input the print job again. Thus, reference to Explanatory Views 3 and 4 provides a illustrative visual demonstration of the operation of Suzuki, et al. Specifically, a print job including the job description file of JDF ID11 and page data for PD3 to PD5 is inputted (see generally Explanatory View 3). It is found that only the input of the image data included in the page data PD4 is failed while the input of the other page data PD3 and PD5 are successfully completed. Hence, it is necessary to input not only the image data, but the whole print job again. (see, Explanatory View 4)

The definitive result, therefore, is that it is impossible to perform the input of each image data separately from the job of which it is a part according to the teachings of the Suzuki, et al. reference. This means that, in the Suzuki, et al. reference, when the input of the Document C is fails, it is necessary to carry out the input starting from the beginning, i.e., from the input of Document A (the first page defined by the PDF) after the trouble that caused the failure is solved (again see Explanatory View 4).

In summary, therefore, to the extent that it is relevant to this Appeal, Suzuki, et al. shows an image-processing device including an input, an output and an image-processor. More specifically, however, the Suzuki, et al. reference discloses job description files received from an external source and used by a job controller to effectuate the output of a print job on a page and/or job basis (as distinct from an image basis as will appear more fully below). Accordingly, the input job description files function as a sort of management table for controlling the operation of the job controller such that unique page data units are generated either by a direct extraction from a job description file or by somehow otherwise retrieving identified distinct page data units from memory.

IV. The Tanaka, et al. reference:

The Tanaka, et al reference, broadly speaking, discloses an image data management system for taking in information written on paper or otherwise stored as input image data and recording or outputting that image data. More particularly, however, the Tanaka, et al. reference deals with a network into which a document or documents may be input by an entity as documents distinctly associated with that entity for later retrieval and/or printing by that entity (or at least an entity that is identifiable by the device as an authorized user of the input document(s)) from any appropriate output of the network.

The Tanaka, et al. specification states that an output in the form of "individual data in order to promote paperless office business" is contemplated (Tanaka, et al., Column 1, lines 38-42). Contrary to the Examiner's reading of this portion of the Tanaka, et al. reference, however, Applicant respectfully submits that the meaning of the term "individual" as it is used at this point of the Tanaka, et al. specification is far from being entirely clear. Indeed, the term "individual" seems to be directed to the fact that each input document is distinctly associated with the individual/entity that originally inputted it into the network. This interpretation is supported by the fact that the Tanaka, et al data registration system is predicated on master files created by the user to contain data corresponding to pages of saved data the location of which is stored in associated slave files in the data registration process during the input thereof from its source. See, Tanaka, et al. at Column 5, lines 50-54. Accordingly, Tanaka, et al.'s use of the words "individual data" in the context of their specification taken as a whole refers to "personal data", rather than to separate data inputs *per se* in the form of whole of documents or fields that are stored by the network for retrieval by an individual (i.e., person).

In any event, the Tanaka et al reference discloses an image-processing device having an input, an output, storage means and image processing means. The real significance of Tanaka, et al., however, resides in its complex, portable data access, storage and tracking system. That system includes as important features a so-called "small card" 32 and small card input/output device 24 (described generally at Column 4, lines 14-33) for customizing and controlling the use and access to files stored on a network system by a particular user.

Accordingly, it will be understood that Tanaka, et al. disclose the performance of input data processing by an input management table 601 (used in the creation of "transmission messages" that are ultimately used in the programming of the so-called "small card") on an insertion-processing basis (see Column 6, lines 61-64, and Column 8, lines 16-38). It is the so-called "small card" that provides access to the data stored in the network in the form of the document that it identifies. Accordingly, in addition to managing the input and storage of input data, certain predetermined parameters are set in the input/transmission message forming management table in Tanaka, et al. Further, to the extent appropriate, the information associated with each of these parameters in the transmission message is edited/updated as data is successively inputted into the system under the control of the input/transmission message forming management table.

Thus, it will be understood that for each document, the Tanaka, et al. system reads (inputs/inserts) registered input data sequentially on a page or field group basis via an insertion iteration counter management table controlled by the user. It is during this insertion iteration process the "it is first determined whether the input management table has already been made, i.e., whether an input request has been made when image data of a plurality of pages are being inputted and an input complete request is not yet made (step 801)" (Column 8, lines 20-38). Thereafter, the input management table is made if necessary, and the input proceeds. This sequence occurs for each page of each document being input prior to the input of the actual data contained therein.

As this is occurring, the so-called "transmission message" (described in the paragraph bridging columns 6 and 7) is formed and continuously edited. This transmission message (that is designed for transfer to the portable small card of a particular individual for his use in future access to the network for the purposes of reading, storing, displaying and printing the information contained in the network memory) contains such parameters as a message classification, a small card owner's identification, the date and hour of image data inputting representing the date and hour *when one sheet has been read in the beginning of image data forming one document*, an imaging device identifier, a registering data format, a system file name of the master file where the input data is stored, the number of associated slave files, the system file names of the slave files, a network address, *a page number* and image data.

Once an indication that a new document is being read (i.e., the iteration counter reaches zero, for example) or a manually generated stop command is received, however, the system completes registration (data input) processing such that the data theretofore input and registered is thereafter managed ***as one document*** (Column 13, lines 55-62). This is because at that point (i) the "transmission message" as it is then configured is transmitted to the "small card" by the communication system of the network for future use by the user in accessing the stored data, and (ii) the input/transmission message forming management table awaits the occurrence of a new event (See, Tanaka, et al. at Column 7, lines 22 to Column 8, lines 15)

The Examiner's understanding is that the management table makes it possible to "easily store image data in a memory device connected to the network, manage the image data or take out the image data". The true teaching of Tanaka et al, however, is that after the parameters stored in the management table (and thus the transmission message) are sent to the so-called "small card", the Tanaka et al system manages that the input information on a page/document basis. Further, the output data processing contemplated by the Tanaka, et al. reference also generally is accomplished on a complete document basis. (See discussion in Tanaka, et al. at Columns 9-11).

In summary, therefore, the Tanaka, et al. reference discloses an image-processing device that in some ways is similar to the Suzuki, et al. device, i.e., upon completion of the insert iteration input of the data on each page and the associated transmission message programming, the transmission message is communicated to the "small card", and thereafter the input data is managed via small card access to the network on a document basis (e.g., the "small card" may be viewed as being analogous in some ways to the job description files previously discussed with respect to the Suzuki, et al. reference)

V. Discussion:

In view of the above discussion, it is to be understood that in addition to the distinctions of the Suzuki et al reference from the present invention specifically admitted by the Examiner (i.e., that Suzuki et al does not disclose a management table that manages input request information indicative of a request for transmitting the image data from the processing means and input completion information indicative of the completion of an input of image data in connection with corresponding information stored in the data storage means), the Suzuki, et al. management table means **does not** manage ***on an image basis as each input image data is inputted*** from the input means the characteristics of ***each image data*** as management information of the image data with reference to the corresponding image data stored in the image data storage means. The Examiner, however, asserts that managing a print job on a job basis and on a page basis reads on this portion of the present claims. Applicant respectfully submits that the Examiner's position does not make logical sense.

In the Suzuki, et al. reference, the print control apparatus receives print jobs from the host apparatus. Also, Suzuki, et al. is careful to separate the concept of a print job, from the concepts of the job description files and the items of page data (including print attributes and image data that form the various pages of a print job) that the print job creates in the print control apparatus. Suzuki, et al., however, is silent concerning what happens in the event that reception of a print job fails. Nevertheless, the overall context of the Suzuki, et al. specification clearly suggests that in the event that the reception of a print job (or indeed its execution in the print control apparatus) fails for any reason, the print control apparatus is required to reinitiate the reception of the entire print job.

No provision is specifically made or suggested in the Suzuki, et al disclosure indicating that the system will, or for any reason should, restart at the point at which it left off at the time of a failure in the receipt of a print job or its processing. Hence, Suzuki, et al. presents an entirely different data management concept from that of the present invention.

Further, the Suzuki, et al. reference presents no recognition of the feature of the present invention that a plurality of image data separately inputted into the print control apparatus may be composed ***by the print control apparatus*** and printed out on one sheet of paper (i.e., as one page). At best, Suzuki, et al. merely recognizes that the same items of image information at the host may be associated with different print jobs, if desired. This has nothing to do with how each print job is managed as it is input into and processed by the print control apparatus. Accordingly, since in the Suzuki, et al. reference the image data is not directly managed, it is less efficient than the device of the present invention.

Applicants also respectfully submit that the Examiner's assertion that the Tanaka et al reference provides a management table that makes it possible to "easily store image data in a memory device connected to the network, manage the image data, or take out the image data' (Tanaka, et al., Column 2, lines 13-15), has lead the Examiner erroneously to consider the components of the Tanaka, et al reference in isolation, rather than considering the reference as a whole, including the portions thereof that tend to teach away from the present invention. This is important because the Tanaka et al reference clearly is different from the present invention in at least the following two respects.

First, Tanaka, et al. does not disclose, teach or suggest in any way a system capable of printing out a plurality of image data compositely in any manner other than the page groupings established during its input and transferred to the "small card" access device.

Second, at the step (801) referred to above and by the Examiner, what Tanaka, et al. determine is whether an input management table has already been made (i.e., whether the page to be input is the first page of the document or not). That is effectively the same thing as determining whether or not an input completion request has been made (i.e., whether or not the following insert belongs to a current document or to the next document). Accordingly, it is clear that Tanaka, et al. manages input data as page groups of data. This means that even though Tanaka, et al. is totally silent concerning what happens in the event that a data input fails, it logically follows that the result will be the same as the giving of a cancel command by the user. According to Tanaka, et al., at Column 7, lines 53-64, this result is the stoppage of data input and the invalidation of the transmission message currently being generated. Accordingly, in Tanaka, et al. it is necessary to input all of the plurality of pages making up the document being input again when only the input of one of the plurality of image data included in the plurality of pages making up the document fails.

Further, even if the Suzuki, et al. reference and the Tanaka, et al reference were to be combined as the Examiner suggests, the result would not be the present invention.

In the Suzuki, et al. reference, image data is managed on a per job and/or on a per print out page basis, but not on a per input image data basis. In the Tanaka, et al. reference, on the other hand, image data is managed on a per input image data basis in the course of programming the so-called "small card" that thereafter allows the individual user of the network with which the card is associated to manage image data on a per page/per document basis. Accordingly, neither the Suzuki, et al. reference nor the Tanaka, et al reference includes the feature of the present invention that allows the input image data to be composed in any desired fashion into one output page.

In a combination of the references in accord with the apparent intent of the Examiner's rejection, an inputted print job would be interpreted so as to first create the image data associated therewith as disclosed by Suzuki, et al. Then, the input completion of the image data would be set for each image data associated with each page of the print job as generally disclosed by the Tanaka, et al. reference in its management of data making up a document in the creation of a transmission message to program the so-called "small card". If the completion of the input of the image data were to fail at some point, however, the combination would revert to inputting the print job again after the reason for the image input failure was corrected. It would not to inputting image data from the point in the sequence at which the input was interrupted. The fact that this would be the result in view of the teachings of the references is clear. As discussed above, this is (i) because the Suzuki, et al reference's input is print jobs managed on a job or page basis (see, Suzuki, et al. Abstract quoted hereinabove), and (ii) because there is no mechanism contemplated by the Tanaka, et al. reference for dealing with a failure in the iterative insertion processing of data for handling a failure of date input other than the cancellation sequence described in the Tanaka, et al. reference at Column 7, lines 53-64.

Accordingly, there is no disclosure, teaching or suggestion in either the Suzuki, et al reference or the Tanaka, et al reference that would lead to a combination of those references resulting in the present invention.

Consequently, Applicants respectfully emphasize again that the object of the Suzuki, et al reference is to manage an inputted print job on a per job or on a per page basis in the print control apparatus. For this reason, the image data included in the print job is transferred to the print control apparatus from the host apparatus. Thus, it is meaningless to suggest that Suzuki, et. al., manages the completion of the input of the image data only. This is particularly the case because it is well known that a prior art reference must be considered as a whole, including the teachings thereof that lead away from or counter-indicate the combination being proposed, in the determination of what the constitution of the reference in combination with another prior art reference would be in the eyes of a person of ordinary skill in the art as of the time that the invention under consideration was made.

Similar reasoning leads to the conclusion that the object of the Tanaka, et al. reference is to realize an image data management system in which image data is easily inputted, stored as individual data, and outputted as the Examiner suggests. Further, what is being inputted to the device in Tanaka, et al is the image data, but not the print job. Hence, the Suzuki, et al. reference and the Tanaka, et al. reference do not contemplate the same or similar objects respectively. Still further, it is unreasonable to suggest that a person skilled in the art at the time the present invention was made would rationally expect that the combination postulated by the Examiner would be successful in attaining the respective objects of the references while at the same time resulting in a structure the same as (and functioning in the same way as) the present invention.

The closest analogy that appears to Applicants to be even remotely reasonable in the present situation is that the device of the Suzuki, et al reference might be likened to the programmed so-called "small card" produced by the input management table/transmission message of a Tanaka, et al. type of device, and that the Tanaka, et al. network might be likened to the "host" discussed by Suzuki, et al. Therefore, Applicants respectfully submit that the conclusion is inescapable that the Suzuki, et al. reference and the Tanaka, et al reference do not relate to each other in such a way that a person of ordinary skill in the art would find that there was a suggestion or motivation to combine them in a manner having a reasonable chance of success in achieving all of the limitations of the claims here at issue without improper hindsight reference to Applicants' disclosure. In other words, it appears that the combination of references postulated by the Examiner could reasonably only be construed as suggesting that a Tanaka, et al. type network in the Suzuki, et al. context might function as the "host", and that the "small card" of the Tanaka, et al reference in the Suzuki, et al. context might act somewhat like a Job Description File. A combination of the latter type would be totally inadequate to adversely impact upon the patentability of the present Claims.

CONCLUSION

It is respectfully submitted that for the foregoing reasons, the Examiner's final rejections of Claims 1 - 4 and 6 - 17 of the subject application do not establish a *prima facie* case of unpatentability under 35 USC 103(a) on the present record.

Specifically, Applicants affirmatively assert that the Examiner's rejections constitute improper hindsight analysis and/or obvious-to-try reasoning based upon the Applicants' teachings. In this regard, Applicants submit that the nature of the cited references is such as to give rise to an inference that the Examiner has improperly utilized Applicants specification as a framework into which he has engrafted isolated portions of prior art patents in an improper attempt to recreate Applicants' claimed invention after the fact of its making. In addition, Applicants further respectfully again note that in cases such as this wherein for the reasons explained in detail above the references themselves do not expressly or impliedly suggest the claimed invention, the Examiner has an obligation to present a convincing line of reasoning to which Applicants can effectively respond as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. Given the present circumstances, Applicants respectfully submit that the Examiner's outstanding Final rejections in this application are insufficiently supported and should not be allowed to stand. See, *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985); *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed Cir. 1999); *McGinley v. Franklin Sports Inc.*, 262 F. 3d 1339, 60 USPQ2d 1001 (Fed Cir. 2001)); *In re Sang Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Feb Cir. 2002); *In re Huston*, (Slip Op. 02-1048 (Fed Cir. October 2002))

Accordingly, a reversal of the currently outstanding final rejections of Claims 1 - 4 and 6 - 17 of the subject application is respectfully requested along with a remand of this application to the Examiner with instructions to allow the entry of Applicant's proposed Amendment After Final Rejection to Claims 1 and 14 as shown in Appendix II attached, and to allow this application as so amended.

Respectfully submitted,

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